

POWERPLANT FIRE PROTECTION

§ 25.1181 Designated fire zones; regions included.

- (a) Designated fire zones are—
 - (1) The engine power section;
 - (2) The engine accessory section;
 - (3) Except for reciprocating engines, any complete powerplant compartment in which no isolation is provided between the engine power section and the engine accessory section;
 - (4) Any auxiliary power unit compartment;
 - (5) Any fuel-burning heater and other combustion equipment installation described in § 25.859;
 - (6) The compressor and accessory sections of turbine engines; and
 - (7) Combustor, turbine, and tailpipe sections of turbine engine installations that contain lines or components carrying flammable fluids or gases.
- (b) Each designated fire zone must meet the requirements of §§ 25.867, and 25.1185 through 25.1203.

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25–11, 32 FR 6913, May 5, 1967; Amdt. 25–23, 35 FR 5677, Apr. 8, 1970; Amdt. 25–72, 55 FR 29785, July 20, 1990]

§ 25.1182 Nacelle areas behind firewalls, and engine pod attaching structures containing flammable fluid lines.

- (a) Each nacelle area immediately behind the firewall, and each portion of any engine pod attaching structure containing flammable fluid lines, must meet each requirement of §§ 25.1103(b), 25.1165 (d) and (e), 25.1183, 25.1185(c), 25.1187, 25.1189, and 25.1195 through 25.1203, including those concerning designated fire zones. However, engine pod attaching structures need not contain fire detection or extinguishing means.
- (b) For each area covered by paragraph (a) of this section that contains a retractable landing gear, compliance with that paragraph need only be shown with the landing gear retracted.

[Amdt. 25–11, 32 FR 6913, May 5, 1967]

§ 25.1183 Flammable fluid-carrying components.

- (a) Except as provided in paragraph (b) of this section, each line, fitting, and other component carrying flammable fluid in any area subject to en-

gine fire conditions, and each component which conveys or contains flammable fluid in a designated fire zone must be fire resistant, except that flammable fluid tanks and supports in a designated fire zone must be fireproof or be enclosed by a fireproof shield unless damage by fire to any non-fireproof part will not cause leakage or spillage of flammable fluid. Components must be shielded or located to safeguard against the ignition of leaking flammable fluid. An integral oil sump of less than 25-quart capacity on a reciprocating engine need not be fireproof nor be enclosed by a fireproof shield.

(b) Paragraph (a) of this section does not apply to—

- (1) Lines, fittings, and components which are already approved as part of a type certificated engine; and
- (2) Vent and drain lines, and their fittings, whose failure will not result in, or add to, a fire hazard.

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25–11, 32 FR 6913, May 5, 1967; Amdt. 25–36, 39 FR 35461, Oct. 1, 1974; Amdt. 25–57, 49 FR 6849, Feb. 23, 1984]

EFFECTIVE DATE NOTE: By Amdt. 25–101, 65 FR 79710, Dec. 19, 2000, § 25.1183 was amended by adding paragraph (c), effective Jan. 18, 2001. For the convenience of the user, the added text is set forth as follows:

§ 25.1183 Flammable fluid-carrying components.

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(c) All components, including ducts, within a designated fire zone must be fireproof if, when exposed to or damaged by fire, they could—

- (1) Result in fire spreading to other regions of the airplane; or
- (2) Cause unintentional operation of, or inability to operate, essential services or equipment.

§ 25.1185 Flammable fluids.

- (a) Except for the integral oil sumps specified in § 25.1183(a), no tank or reservoir that is a part of a system containing flammable fluids or gases may be in a designated fire zone unless the fluid contained, the design of the system, the materials used in the tank, the shut-off means, and all connections, lines, and control provide a degree of safety equal to that which